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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,036	07/08/2003	Akhlaq Moman	180577-00630WS	9805

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INTELLECTUAL PROPERTY DEPARTMENT  
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NEW YORK, NY 10022

EXAMINER
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PASTERCZYK, JAMES W

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 01/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/616,036

Applicant(s)

MOMAN ET AL.

Examiner

J. Pasterczyk

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,8,10-19,21-28 and 30 is/are pending in the application.
- 4a) Of the above claim(s) 27,28 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,8,10-19 and 21-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1,3-5,7,8,10-19,21-28 and 30 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/8/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Art Unit: 1755

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1, 3-5, 7, 8, 10-19 and 21-26, drawn to a catalyst composition, classified in class 502, subclass 115 inter alia.
- II. Claims 27, 28 and 30, drawn to an olefin polymerization process, classified in class 526, subclass 160 inter alia depending on the particulars of the catalyst used.

2. The inventions are distinct, each from the other because:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product, such as a chromium oxide catalyst.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with William J. Spatz, Esq., on 1/7/05, a provisional election was made with traverse to prosecute the invention of group I, claims 1, 3-5, 7, 8, 10-19 and 21-26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 27, 28 and 30 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

Art Unit: 1755

currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. The abstract of the disclosure is objected to because it does not appear to describe the actual invention of the present application; c.f. below. Correction is required. See MPEP § 608.01(b).

7. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It was not executed in accordance with either 37 CFR 1.66 or 1.68.

Specifically, inventor Moman appears to have signed both for himself and inventor al-Bahily. No reason and supporting affidavit for this is given.

8. Claims 1, 3-5, 7, 8, 10-19 and 21-26 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 1, 3-5, 7, 8, 10-19 and 21-26 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the specification as originally filed. In that paper, each and every working example is drawn to a supported catalyst having all three transition metal components of present claim 1, both cocatalyst components of claim 1, as well as a polyvinylchloride support and a Grignard reagent but no alcohol, and these examples indicate that the invention is different from what is defined in the claim(s) because the claims as currently drawn only require one of the transition metal compounds, one of the cocatalyst components, and the presence or absence of the support, magnesium and alcohol compounds is

Art Unit: 1755

not clearly stated in the claims. As applicants know, the chemical arts and the catalyst arts in particular are considered to be highly unpredictable, hence a clearly drawn disclosure and claims are more necessary in such a case than in many other fields of technology.

9. Claims 1, 3-5, 7, 8, 10-19, and 21-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, l. 3, "Ziegler-Natta" is normally used to refer to a complete catalyst or the polymerization process performed using such a catalyst, hence it is not clear what is meant by a "Ziegler-Natta compound", particularly where titanates are also used to make Ziegler-Natta catalysts. Also, the wording of the claim currently requires there be only one of a "Ziegler-Natta compound", a metallocene, or a titanate, or even at least one alcohol (which would not likely result in a working catalyst), and one of an alkyl aluminum or an alumoxane, with the presence or absence of the magnesium compound and the polymeric support not being clearly recited. In other words, it is not clear exactly what combinations of individual reagents are being claimed here, although the specification examples seem to require all except the alcohol. In the third from last line insert a comma before "or at least one alcohol compound".

Claims 3 and 4 also use the term "Ziegler-Natta compound".

Claims 3 and 5 use the symbol Tm to refer to a transition metal, yet this symbol already has a known conventional use in chemistry as the symbol for thullium. It is required that another symbol be used since thullium is known to form compositions that perform olefin polymerization catalysis. A simple "M" will do.

Art Unit: 1755

In claim 26 the embodiment where the catalyst precursor comprises an alcohol lacks antecedent basis since there is no transition metal in that permutation; note last two lines of this claim which require a transition metal.

10. Claims 3, 15 and 18 are objected to because of the following informalities: in claim 3 the coefficients need to be subscripted, in claim 15 l. 3 and 4 insert a hyphen between “n” and “butyl” and correct the spelling to “ethyl”, and in claim 18, last line, “or” should be --and--. Appropriate correction is required.

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 3, 4, 12 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Winslow et al., USP 5,534,472 (hereafter referred to as Winslow).

Winslow discloses the invention as claimed (abstract; col. 6, l. 22-36, l. 45-68; col. 7, l. 1-23; examples) when silica is recognized to be an inorganic polymer of the empirical formula  $\text{SiO}_2$ .

13. Claims 1, 5, 7, 8, 16, 22, 24 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Sagar et al., USP 5,595,950 (hereafter referred to as Sagar).


Sagar discloses the invention as claimed (abstract; col. 3, l. 2-60; col. 5, l. 6-25, l. 50-63; col. 6, l. 40-53; examples including comparative examples).

Art Unit: 1755

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is 571-272-1375. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at 571-272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID SAMPLE  
PRIMARY EXAMINER



J. Pasterczyk

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1/11/05